



City of Fairfax

Water Source Overview

Major water sources include Beaverdam Creek Reservoir, Goose Creek, and purchased water.

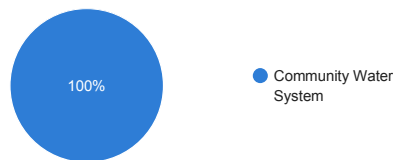
***Table 1:** Reported (2010) and projected (2040) water use by system type for Fairfax City in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	9.100	12.176

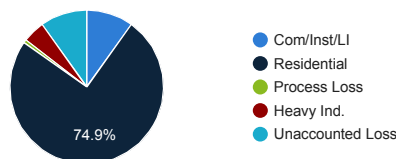
Water Use by System Type

There are no reported users of private groundwater wells for residential water supply. All tables and graphs represent reported water use including Sales to other localities, if applicable.

***Figure 1:** Percentage of reported water use by system type in 2010 (No use data shown on graph if less than .01 MGD: Refer to Table 1)



***Figure 2:** Disaggregated water use percentages for Community Water Systems in 2010 (No graph shown if no disaggregated use data reported)



***Table 2:** Reported (2010) and projected (2040) groundwater and surface water use for Fairfax City in MGD

Reported 2010 Groundwater Use (MGD)	Reported 2010 Surface Water Use (MGD)	Projected 2040 Groundwater Use (MGD)	Projected 2040 Surface Water Use (MGD)
0.00	9.10	0.00	12.18

***Figure 3:** Fairfax City highlighted in the Commonwealth of Virginia



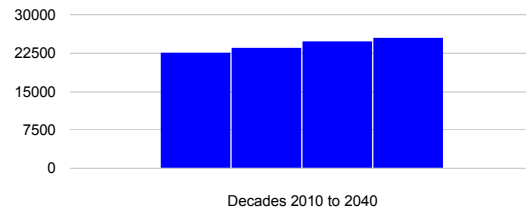
Projected Water Demand

Population and demand are projected to increase through the planning period. The City of Fairfax may experience a water deficit in 2038, with a total deficit of almost 0.20 MGD by 2040. The region's plan to address the projected shortfall of municipal supply includes constructing a stream intake/pumping station on the Potomac estuary below Little Falls (recently permitted by DEQ); utilizing a reverse osmosis membrane treatment plant on the Occoquan estuary, using quarries located in Fairfax County to augment Fairfax Water storage, and using Loudoun County quarries to augment system storage (recently permitted by DEQ).

***Table 3:** Fairfax City population projections by decade from 2010 to 2040 (data gathered from VEC projections - 05/20/13)

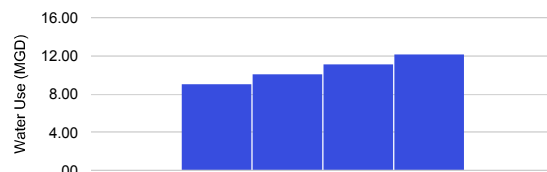
2010	2020	2030	2040	% Change (2010-2040)
22,565	23,751	24,758	25,543	13.6%

***Figure 4:** Fairfax City population projections by decade for 2010, 2020, 2030 & 2040



***Table 4 & Figure 5:** Fairfax City water demand trends by decade for 2010, 2020, 2030 & 2040 in MGD

Reported Use 2010 MGD	Projected Use 2020 MGD	Projected Use 2030 MGD	Projected Use 2040 MGD	Percent Change (2010-2040)
9.10	10.13	11.15	12.18	33.8%



Drought Management Practices

The City follows the declarations of the Metropolitan Washington Water Supply and Drought Awareness Response Plan. Drought enforcement is addressed through an ordinance adopted by the City. (Northern Virginia Regional WSP)